# LOW PROFILE LOAD CELL TYPE 142

## APPLICATIONS:

The low profile load cell type 142 can be used in small, medium and high loading capacity weighing systems.
Some applications are:

- Weighing in hoppers, tanks, silos, etc.
- Weighing platforms

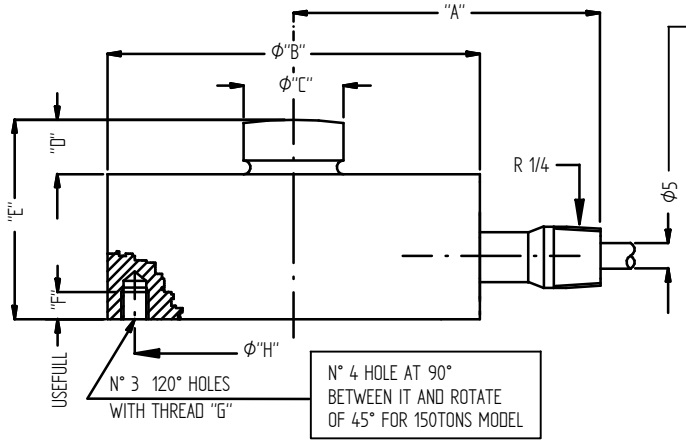
## MAIN FEATURES:

- Water-proof
- Side load high resistance
- Stainless steel
- Available with double bridge output (for redundant system)
- Available with CANopen output (CIA 404)
- Available with analog output 4-20mA
- Soldered with microplasma
- Standard nominal load from 500 to 150.000 kg
- High precision (equivalent to OIML C3)

## NOMINAL LOAD: ton 0.5-1-2-5-7,5-10-15-20-30-50-100-150

| SPECIFICATION ACCORDING TO VDI/VDE 2637 | | | |
|---|---|---|---|
| **METROLOGICAL CHARACTERISTICS** | **Par.** | **Un.** | |
| COMBINED ERROR | Fcomb | % Ln | 0,020 |
| NOMINAL LOAD | Ln | t | 0,5÷150 |
| INITIAL LOAD | Lp | % Ln | 25 |
| MAXIMUM LOAD | Ll | % Ln | 150 |
| NON-LINEARITY | Flin | % Ln | 0,02 |
| HISTERESIS ERROR | Fu | % Ln | 0,015 |
| REPEATABILITY ERROR | Fv | % Ln | 0,01 |
| CREEP-30 MINUTES | Fcr | % Ln | 0,02 |
| NOMINAL TEMPERATURE RANGE | Btn | °C | -10+40 |
| ZERO TEMPERATURE DRIFT (OVER 10 °C) | TK0 | % Cn | 0,009 |
| OUTPUT TEMPERATURE DRIFT (OVER 10 °C) | TKC | % Cn | 0,009 |
| THERMAL GRADIENT | | °K/h | <5 |
| **ELECTRICAL DATA** | | | |
| NOMINAL OUTPUT | Cn | mV/V | 2 |
| NOMINAL OUTPUT TOLERANCE | Dc | ±% Cn | 0,1 |
| NOMINAL SUPPLY VOLTAGE | Bsu | V | 1÷24 |
| MAXIMUM SUPPLY VOLTAGE | Usmax | V | 30 |
| INPUT RESISTANCE | Re | Ω | 850±10% |
| OUTPUT RESISTANCE | Ra | Ω | 700±1% |
| INSULATION RESISTANCE @ 20V | Ris | MΩ | >2000 |
| ZERO OUTPUT TOLERANCE | Do | ±% Cn | 1 |
| **MECHANICAL DATA** | | | |
| BREAKING LOAD | Ld | % Ln | >250 |
| MAXIMUN SIDE LOAD | Llq | % Ln | 300 |
| DEFLECTION | hn | mm | <0.3 |
| CABLE LENGTH | | m | 5 |
| WEIGHT | | Kg | 1.5÷7.5 |
| **ENVIRONMENTAL CONDITIONS** | | | |
| WORKING TEMPERATURE RANGE | Btn | °C | -40+80 |
| STORAGE TEMPERATURE RANGE | Bts | °C | -40+80 |
| HOUSING PROTECTION | | | IP 66/68 |

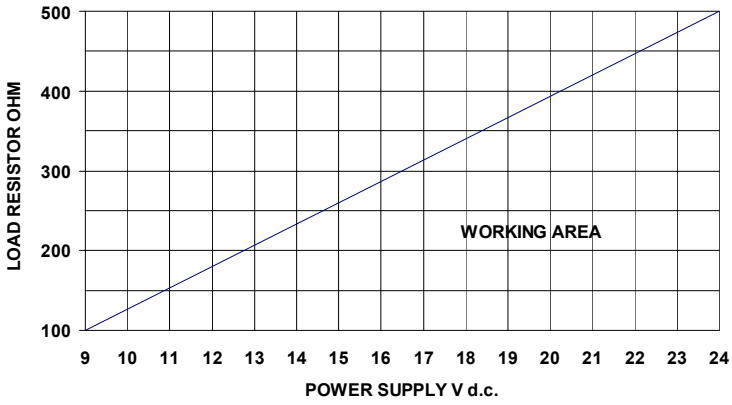
SUBJECT TO CHANGE WITHOUT NOTICE




SHELDED POLYURETHANE CABLE WITH: STANDARD LENGHT 5m
4x0,35 mm^2 FOR 142 TYPE OTHER LENGHT ON
8x0,125 mm^2 FOR ALL OTHER TYPE REQUEST

| | | TYPE 142-XX-C3 | TYPE 142MA-XX-C3 | TYPE 142CO-XX-C3 |
|---|---|---|---|---|
| SINGLE BRIDGE | | BLUE +SUPPLY | BLUE +SUPPLY | BLUE +SUPPLY |
| | | BLACK -SUPPLY | BROWN -SUPPLY | BROWN -SUPPLY |
| | | RED +SIGNAL | GRAY +4-20 mA | RED +CAN-OPEN |
| | | WHITE -SIGNAL | | WHITE -CAN-OPEN |
| | | TYPE 142DP-XX-C3 | TYPE 142DPMA-XX-C3 | TYPE 142DPCO-XX-C3 |
| DOUBLE BRIDGE | BRIDGE 1 | GREEN +SUPPLY | GREEN +SUPPLY | GREEN +SUPPLY |
| | | YELLOW -SUPPLY | YELLOW -SUPPLY | YELLOW -SUPPLY |
| | | GRAY +SIGNAL | GRAY +4-20 mA | GRAY +CAN-OPEN |
| | | PINK -SIGNAL | | PINK -CAN-OPEN |
| | BRIDGE 2 | BLUE +SUPPLY | BLUE +SUPPLY | BLUE +SUPPLY |
| | | BROWN -SUPPLY | BROWN -SUPPLY | BROWN -SUPPLY |
| | | RED +SIGNAL | RED +4-20 mA | RED +CAN-OPEN |
| | | WHITE -SIGNAL | | WHITE -CAN-OPEN |

**mA OUTPUT LOAD CAPACITY VERSUS POWER SUPPLY**




ORDERING INFORMATION

142-XXX-X ← SEE TECHNICAL DATA

| | NOMINAL LOAD | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" |
|---|---|---|---|---|---|---|---|---|---|
| 500K | 500Kg | 66 | 82 | 22 | 11 | 44 | 8 | M6 | 70 |
| 1T | 1t | | | | | | | | |
| 2T | 2t | | | | | | | | |
| 5T | 5t | | | | | | | | |
| 7.5T | 7.5t | | | | | | | | |
| 10T | 10t | | | | | | | | |
| 20T | 20t | 74 | 99 | 28 | 11 | 48 | 15 | M10 | 80 |
| 30T | 30t | 88 | 126 | 35 | 12 | 54 | 15 | M12 | 105 |
| 50T | 50t | 107 | 164 | 55 | 15 | 65 | 20 | M16 | 130 |
| 100T | 100t | | | | | | | | |
| 150T | 150t | 107 | 164 | 55 | 13 | 71 | 20 | M16 | 130 |

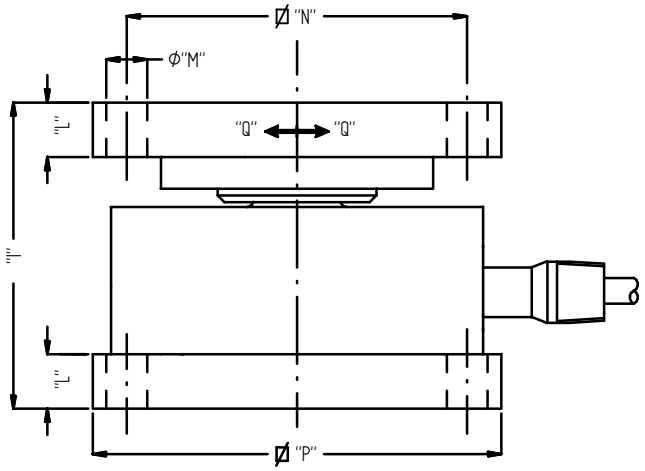
ASSEMBLY KIT WITH
ANTI-TIPPING DEVICE

KIT ORDERING INFORMATION

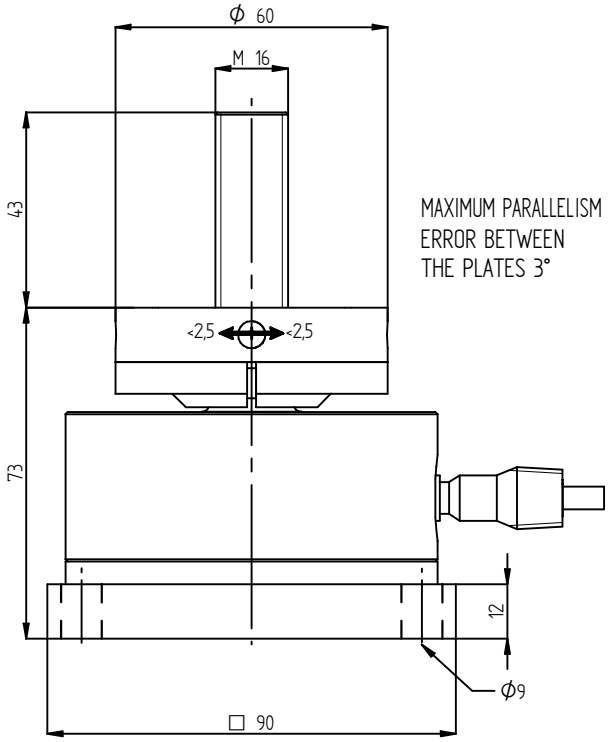
| | NOMINAL LOAD | "I" | "L" | "M" | "N" | "P" | "Q" |
|---|---|---|---|---|---|---|---|
| K142-1H | <7.5t | 73 | 12 | 9 | 75 | 90 | 2.5 |
| K142-2H | 10-20t | 80 | 12 | 11.5 | 90 | 110 | 4 |
| K142-3H | 30t | 94 | 15 | 13 | 115 | 140 | 5 |

MAXIMUM HORIZONTAL SHIFT IN EVERY
DIRECTION FROM THE CENTRAL POINT

MAXIMUM PARALLELISM
ERROR BETWEEN
THE PLATES 3°




ASSEMBLY KIT TYPE "K142-1B" WITH
ANTI-TIPPING DEVICE FOR MAX LOAD 10t




MAXIMUM PARALLELISM
ERROR BETWEEN
THE PLATES 3°